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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,357	09/11/2003	Lascar Popovici	0501-1010-1	5552

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EXAMINER	
PANNALA, SATHYANARAYA R	
ART UNIT	**PAPER NUMBER**
2167	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/659,357	POPOVICI, LASCAR	
	Examiner	Art Unit	
	Sathyanarayan Pannala	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-30* is/are pending in the application.

4a) Of the above claim(s) *1-15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/11/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The Application # 10/659,357 filed on 10/17/2003 has been examined. Supplemental preliminary amendment filed on 10/17/2003 has been entered with claims 1-15 as cancelled and 16-30 as added. Claims 16-30 are pending in this Office Action.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The examiner has considered the certified copy of the Application France 98 10075 dated 8/5/1998 for priority claiming. ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 9/11/2003 is in compliance with the provisions of 37 CFR 1.97 and has been considered by the examiner.

Claim Objections

4. Claim 1 is objected to because of the following informalities: claim 1 has "the said corpus" on page 3, line 9 and the examiner considered as "the corpus". Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 23-24 are rejected under 35 U.S.C. 101 because examiner did not find supporting information for "application" in the specification, whereas the claim 23, line 1 states as "an application of the method". A person of ordinary skill in the data processing art would consider an application as a software. Hence, claim 23 is not limited to tangible embodiment and the claim is not limited to statutory subject matter and is therefore non-statutory under 35 U.S. C. 101.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. As per independent claim 16, Davies teaches a geographic information system (GIS) displays topological region in real time. He also teaches as topological information is classified as geometrical objects and each object has an entry in a database and each entry has records of attributes for the geometrical object (col. 3, lines 36-38 and lines 50-53). Davies teaches the claimed step of "defining structure of object families in function of the concerned application to obtain elementary families" as a polygon object is a geographic feature recorded on a map as a sequence of locations or lines that taken together define an enclosed area having a positive area that represents the feature (Fig. 5, col. 9, lines 3-6). Further, Davies teaches the claimed step of "identifying topologic information" as classifying topological information by geometrical objects and feature identifiers representing topological features to reconstruct each topological feature (col. 8, lines 43-46). Further, Davies teaches the claimed step of "identifying attributes" as an attribute is a characteristic of a topological feature that includes a measurement or value for the feature and attributes includes a feature identifier, an ordered list of coordinates, a visibility level, a line weight and color (col. 8, lines 18-21). Further, Davies teaches the claimed step of "cutting the topologic information into geometric information comprising information of form and information of position" as tiling and layering are used to divide a geographic space, whereas tiling is the dividing of a geographic space into tessellations or tiles preferably rectangular in shape and layering is the placing of tiles one over another (col. 9, lines 27-33). Further, Davies teaches the claimed step of "gathering topologic information into a single topologic table, referred as the corpus, juxtaposing the elementary families for each

elementary family, the corpus contains all the geometric forms defining objects with similar attributes" as a total of four relational databases in the data structure to graphical displays of the United States on six layers of tiles (Fig.6a-f, 7a-f, 8, col. 9, lines 50-53 and lines 60-61). Davies teaches the claimed step of "gathering semantic and formal attributes associated with the objects in a table of attributes, referred as the index" as data for the GIS is obtained form real world information such as surveyor's information, hygrographer's information and form satellite imagery and the existing map data can be obtained form different sources (Fig. 9, col. 14, line 64 to col. 15, line 8). Davies teaches the claimed step of "storing in an information storage means a block of structure information constituted by the said corpus and the said index" as storage area 300 has databases 302, 304, 306, and 308 are used to store information on different geographic regions and updated as necessary. Davies teaches using ISDN communication network and modem (col. 8, lines 24-26) and does not teach explicitly accessing spatial data using a browser/internet. However, Rutledge teaches the claimed step of "browsing information source" as a user can access the database server 100 via either a modem 115 or a computer communication network such as the internet 120 (Fig. 1, col. 2, lines 62-64). Thus, it would have been obvious to one of ordinary skill in the data processing art a t the time of the invention, to have combined the teachings of the cited references because Rutledge's teachings would have allowed Davies's method to access spatial information on web with the aid of a browser such as the Netscape and a search engine such as Yahoo, the user can perform text string search (col. 1, lines 22-26).

9. As per dependent claim 17, Davies teaches the claimed step of "corresponding between the corpus and comprising a mechanism of the index" as each database includes an entry in a respective database for each object and each entry for an object includes records for attributes which are associated with each object (Fig. 6a-f, 7a-f, col. 9, line 67 to col. 10, line 2).

10. As per dependent to claim 18, Davies teaches the claimed step of "the mechanism of correspondence comprise a correspondence of position between the topologies in the corpus and the attributes in the object" as each object will have a corresponding visibility level attribute (Fig. 8, col. 10, lines 40-43).

11. As per dependent claim 19, Davies teaches the claimed step of "defining a hierarchical set of criteria related to the attributes of the objects for a given application, and classifying the objects into elementary families containing only objects or parts having the same attributes by applying the criteria in the order of their hierarchy" as layering is dividing the geographical space vertically. Each layer has the same overall dimensions and has the same outer boundary. The first level contains only a single tile, the next level contains four rectangular tiles and has little more details and the next lower level contains sixteen rectangular tiles and has greater details and so on (col. 9, lines 33-44).

12. As per dependent to claim 20, Davies teaches the claimed step of "at least sub-family of objects having the same attributes is sub-divided into elementary families as a function of at least one topologic criterion" as there are a total of four relational databases in the data structure, and they are assigned for polygon, polyline, point and raster objects (Fig. 6a-6f, 7a-7e, 8, col. 9, lines 60-66).

13. As per dependent to claim 21, Davies teaches the claimed step of "groups of objects comprising one or more elementary families selected as a function of the hierarchic level of the criterion of attributes that is used, are globally operated" as only two polyline objects are tile 20-1. The first object is a polyline, which represents Interstate 90 and is object A and the second object is a polyline, which represents Route 2 and is object B. There is an entry for each object which includes records for attributes of a polyline including a tile number, an identifier, a feature identifier, a visibility level, an ordered list of coordinates, a color and a line weight (Fig. 8, col. 11, lines 24-34).

14. As per dependent claim 22, Davies teaches the claimed step of "objects are operated by calling a criterion present at least two branches of the hierarchy of said criteria" as Objects G, H, I, L and N will have entries for both tile 10-1 and 10-3 which differ only in the tile attribute. Tile 10-1 were loaded into display only boundary of each of the states within tile 10-1 would be displayed along with a roster background (Fig. 6b, col. 10, lines 66-67 to col. 11, lines 1-14).

23. As per dependent claim 23, Davies teaches the claimed step of "for making blocks of structured information from pre-existing spatially-referred information stored files under any format, each block of information comprising a corpus topologic information and an index of attributes" as the processor 104 controls the main memory to implement access area 320 and virtual blackboard 342. The access area 320 includes a polyline buffer 322 and a link list 324. the polyline buffer is used to load accessed portions of the data structure therein and the link list 324 is used to modify visibility levels if needed (Fig. 8, col. 13, lines 9-25).

15. An application according to claim 24, Davies teaches the claimed step of "defining a hierarchy for criteria of attributes in function of the application" (Fig. 5, col. 8, lines 62-67 to col. 9, lines 1-17), "analyzing a source information for identifying on one hand the topologic information, and, on the other hand, the attributes" (Fig. 5, col. 9, lines 18-25), "choosing a set of basic forms in function of the nature of information and of the aim of the application" (Fig. 5, col. 9, lines 26-44), "building a topologic table of forms (corpus) and a table of the attributes (index) (Fig. 6a-6f, 7a-7e,8, col. 9, lines 60-67), "building a mechanism of correspondence between said table of forms and said table of attributes" (Fig. 4, col. 13, lines 9-33) and "arranging the elementary families of the block" (Fig. 8, col. 11, lines 24-34).

16. As per independent claim 25, Davies teaches a geographic information system (GIS) displays topological region in real time. He also teaches as topological information is classified as geometrical objects and each object has an entry in a database and each entry has records of attributes for the geometrical object (col. 3, lines 36-38 and lines 50-53). Davies teaches the claimed step of "defining structure of object families in function of the concerned application to obtain elementary families" as a polygon object is a geographic feature recorded on a map as a sequence of locations or lines that taken together define an enclosed area having a positive area that represents the feature (Fig. 5, col. 9, lines 3-6). Further, Davies teaches the claimed step of "identifying topologic information" as classifying topological information by geometrical objects and feature identifiers representing topological features to reconstruct each topological feature (col. 8, lines 43-46). Further, Davies teaches the claimed step of "identifying attributes" as an attribute is a characteristic of a topological feature that includes a measurement or value for the feature and attributes includes a feature identifier, an ordered list of coordinates, a visibility level, a line weight and color (col. 8, lines 18-21). Further, Davies teaches the claimed step of "cutting the topologic information geometric information comprising information of form and information position" as tiling and layering are used to divide a geographic space, whereas tiling is the dividing of a geographic space into tessellations or tiles preferably rectangular in shape and layering is the placing of tiles one over another (col. 9, lines 27-33). Further, Davies teaches the claimed step of "gathering topologic information into a single topologic table, referred as the corpus, juxtaposing the elementary families for each

elementary family, the corpus contains all the geometric forms defining objects with similar attributes" as a total of four relational databases in the data structure to graphical displays of the United States on six layers of tiles (Fig.6a-f, 7a-f, 8, col. 9, lines 50-53 and lines 60-61). Davies teaches the claimed step of "gathering semantic and formal attributes associated with the objects in a table of attributes, referred as the index" as data for the GIS is obtained form real world information such as surveyor's information, hygrographer's information and form satellite imagery and the existing map data can be obtained form different sources (Fig. 9, col. 14, line 64 to col. 15, line 8). Davies teaches the claimed step of "storing in an information storage means a block of structure information constituted by the said corpus and the said index" as storage area 300 has databases 302, 304, 306, and 308 are used to store information on different geographic regions and updated as necessary. Davies teaches using ISDN communication network and modem (col. 8, lines 24-26) and does not teach explicitly accessing spatial data using a browser/internet. However, Rutledge teaches the claimed step of "browsing information source" as a user can access the database server 100 via either a modem 115 or a computer communication network such as the internet 120 (Fig. 1, col. 2, lines 62-64). Thus, it would have been obvious to one of ordinary skill in the data processing art a t the time of the invention, to have combined the teachings of the cited references because Rutledge's teachings would have allowed Davies's method to access spatial information on web with the aid of a browser such as the Netscape and a search engine such as Yahoo, the user can perform text string search (col. 1, lines 22-26).

17. As per dependent claim 26, Davies teaches the claimed step of "the cutting means are arranged for describing simultaneously the form and the position of each object by combining several of said geometric forms" as two polyline objects are depicted in tile 20-1. The first object is a polyline, which represents Interstate 90 and is object A. The second object is a polyline, which represents Route 2 and is object B. There is an entry for each object which includes records for attributes of polyline including a tile number, an identifier, a feature identifier, a visibility level, an ordered list of coordinates (indicates position) a color and a line weight (Fig. 6c, col. 11, lines 24-33).

18. As per dependent claim 27, Davies teaches the claimed step of "for selecting, as at least several of said geometric forms, basic forms composed from elementary forms" as classifying topological information by geometrical objects and feature identifiers representing topological features to reconstruct each topological feature. Topological features are represented by point objects, polyline objects and plygon objects and the background is represented by raster objects (col. 8, lines 43-46 and lines 62-64).

19. As per independent claim 28, Davies teaches a geographic information system (GIS) displays topological region in real time. He also teaches as topological information is classified as geometrical objects and each object has an entry in a database and

each entry has records of attributes for the geometrical object (col. 3, lines 36-38 and lines 50-53). Davies teaches the claimed step of "display" as a display 112, such as a cathode ray tube (CRT) or a flat panel display, for displaying information to a computer user (Fig. 4, col. 7, lines 50-51). Further, Davies teaches the claimed "for acquiring data and controls" as an input device 114, including alphanumeric and other keys, is coupled to the bus 102 for communicating information and command selections to the processor 104. Another type of user input device is cursor control 116, such as a mouse, a trackball, or cursor direction keys for communicating direction information and command selections to processor 104 and for controlling cursor movement on the display 112. This input device typically has two degrees of freedom in two axes, a first axis (e.g., x) and a second axis (e.g., y) allowing the device to specify positions in a plane (Fig. 4, col. 7, lines 52-61). Further, Davies teaches a geographic information system (GIS) displays topological region in real time. He also teaches as topological information is classified as geometrical objects and each object has an entry in a database and each entry has records of attributes for the geometrical object (col. 3, lines 36-38 and lines 50-53). Davies teaches the claimed step of "for storing information that contains at least one block of structured spatially-referred information defining objects n-dimensions space and comprising for each object information of form, information of position and information of semantic formal attributes that are characteristics or properties of said object, said structured information having separate tables for topologic information and information attributes,

"means for operating said least one block information" as a geographic information system (GIS) displays topological region in real time. He also teaches as topological information is classified as geometrical objects and each object has an entry in a database and each entry has records of attributes for the geometrical object (col. 3, lines 36-38 and lines 50-53).

20. As per dependent claim 29, Davies teaches the claimed step of "data transmission network for downloading said at least one block of topologic information" data for the geological information system is obtained from real world such as surveyor's information, hygrographers information and form satellite imagery (Examiner interprets that the satellite imagery can only be obtained by downloading from an internet site) (Fig. 9, col. 14, lines 64-67).

21. As per dependent claim 30, Davies does not explicitly teach accessing roads. However, Rutledge teaches the claimed step of "apparatus provides access assistance services, particularly for road traffic or meteorology" as with the aid of GIS, the spatial data is displayed on computer terminal 110, just like the paper map with roads, rivers, vegetation and other features represented as lines on a map with border and titles (Fig. 1, col. 4, lines 17-23). Thus, it would have been obvious to one of ordinary skill in the data processing art a t the time of the invention, to have combined the teachings of the cited references because Rutledge's teachings would have allowed Davies's method to access spatial information on web with the aid of a browser such as the

Netscape and a search engine such as Yahoo, the user can perform text string search (col. 1, lines 22-26).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (571) 272-4115. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sathyanarayan Pannala
Examiner
Art Unit 2167

srp
July 28, 2005